interesting, and there are some carved wooden screens at the east end of the aisles, which deserve examination.

On the road from Walsingham to Fakenham, at a place called *Houghton in the Dale*, (a pretty place with a pretty name), we passed a beautiful little chapel, now in ruins. The arrangement of the gable is very charming, and its rapid decay cannot be too much deplored. If it be true, as we heard was the case, that it belongs to an active member of the Institute, there is perhaps some hope that he may be led to restore it, or, at all events, to sustain it. Its restoration would form one of the most interesting monuments of the visit of the Institute that could be devised, and a valuable result to be appealed to hereafter.

It is not our province to record how that his lordship, the bishop, entered warmly into the business of the meeting, how the excellent Lord Northampton aided and abetted right willingly, how the Dean of Westminster had often something to say, how the lady who always writes the nice notice of these meetings in Chambers' was seen, note book in hand, in all sorts of unapproachable places, or how Mr. Cunningham bustled about and got people into order. Suffice it for us to remark, under this head, that the week was spent pleasantly as well as usefully; and, with a memorandum that, in our last volume, will be found a good engraving of the bishop's palace gate-house,* alluded to in Mr. Britton's paper already reported,† we close our present notes of the meeting at Norwich.‡

At Ely, Professor Willis delivered a discourse on the cathedral in the cathedral itself, and as we have not yet referred to it, we avail ourselves of a contemporary for the following notes of the lecture:—

"Ely (he said), was a much larger, more imposing, and more magnificent cathedral than Norwich. The nave was late Norman, and very light for that style. It was a most magnificent Norman nave, and as nearly as possible untouched. The presbytery was of the best order of Early English; the Galilee at the west end also Early English, and of the best character and time (see our engraving, p. 474, *ante*). Indeed, Ely Cathedral contains nearly a complete series of examples of the several styles—decorated work of most excellent execution, and perpendicular work that is extremely beautiful. Instead of the usual square tower in the centre, we have here an octagon lantern of wonderful beauty and proportion. It was easy to see how Sir Christopher Wren had adopted it at St. Paul's,—and how in supporting the cupola of his cathedral he had studied the way in which the octagon lantern at Ely was supported. This part of the structure would well repay attention. In settling the position of the choir and the presbytery, he would direct attention to the bosses on the vaulting. One boss representing St. Peter still remains, and this is immediately above the high altar. Another eastward of this, represents Etheldreda and the Virgin,—and immediately beneath this is the shrine of Etheldreda. Ely Cathedral was erected very shortly after Winchester Cathedral, and there was a very considerable resemblance between them—the dimensions, moreover, were nearly the same. Abbot Simeon, he would remark, who commenced the conventual church at Ely, was brother to Walkelyn, Bishop of Winchester. Another cathedral with which Ely was associated in the history of its architecture was Lincoln, and he was happy to think that the institute would be at Lincoln next year, and he would then have an opportunity of explaining this connection—always an interesting point in studying the progress of architecture; and here he could not but express his regret that the side aisles of the south transept are still blocked up. Much had been done, and in excellent taste, by the present dean; and he really hoped that before long the side aisles would be again thrown open. He scarcely could trust his eyes when he contrasted Ely Cathedral twenty years ago with Ely Cathedral as he now saw it. Twenty years ago there was the green damp plentifully about it, more whitewash than he cared to see, and a great economy of glass. Now, the green damp was nowhere to be seen, the whitewash had been scraped away, the vaulting cleaned, and the stone exhibited in its native colour."

ON THE POSITIVE SCIENCE AND MATHEMATICAL PRINCIPLES INVOLVED IN THE FINE ARTS.*

THE double necessity imposed upon the mind, of observation for the formation of a theory, and a theory for the practice of observation, would have caused it to move in a circle, if nature had not fortunately provided an outlet in the spontaneous activity of the mind. This activity causes it to begin by assuming a cause, which it seeks out of nature, *i.e.*, supernatural. As man is conscious that he acts according as he wills, so he naturally concludes that every thing acts according to some superior will.

Hence Fetichism, which is nothing but the endowment of inanimate things with life and volition. This is the logical necessity for the supernatural stage. The mind commences with the unknowable; it has first to learn its importance,—to learn the limits of its range before it can content itself with the knowledge.

The metaphysical stage is equally important as transitive. The supernatural and positive stages are so widely opposed as to require intermediate notions to bridge over the chasm. In substituting an entity inseparable from phenomena, for a supernatural agent, through whose will these phenomena were produced, the mind was habituated to consider only the phenomena themselves. This was a most important condition.

The result was, that the ideas of these metaphysical entities gradually faded, and were lost in the mere abstract names of phenomena.

The positive stage was now possible. The mind having ceased to interpose either supernatural agents or metaphysical entities between the phenomena and their production, attended solely to the phenomena themselves. These it reduced to laws; in other words, it arranged them according to their invariable relations of similitude and succession. The search after essences and causes was renounced. The pretensions to absolute knowledge was set aside. The discovery of laws became the great object of mankind.

Remember, that although every branch of knowledge must pass through these three stages, in obedience to the law of evolution; nevertheless, the progress is not strictly chronological. Some sciences are more rapid in their evolution than others; some individuals pass through these evolutions more quickly than others; so also of nations. The present intellectual anarchy results from that difference; some sciences being in the positive, some in the supernatural, and some in the metaphysical stage; and this is further to be subdivided into individual differences; for in a science which, on the whole, may fairly be admitted as being positive, there will be found some cultivators still in the metaphysical stage. Astronomy is now in so positive a condition, that we need nothing but the laws of dynamics and gravitation to explain all celestial phenomena; and this explanation we know to be correct, as far as any thing can be known, because we can predict the return of a comet with the nicest accuracy, or can enable the mariner to discover his latitude and find his way amidst the "waste of waters." This is a positive science. Remark also, that while in the present day no natural philosopher is insane enough to busy himself with the attempt to discover the cause of attraction, thousands are busy in the attempt to discover the cause of life and essence of mind! This difference characterizes positive and metaphysical sciences: the one is content with a general fact, that "the operation of attraction is inversely as the square of the distance," this being sufficient for all scientific purposes, because enabling us to predict with unerring certainty the results of that operation. The metaphysician, or metaphysical physiologist, on the contrary, is more occupied in guessing at the causes of life, than in observing and classifying vital phenomena with a view to detect the laws of their operation.

First, he guesses it to be what he calls a "vital principle,"—a mysterious entity residing in the frame, and capable of engendering phenomena. He then proceeds to guess at the nature or essence of this principle, and pronounces it "electricity," or "nervous fluid," or "chemical affinity." Thus heaps hypothesis upon hypothesis, and clouds the subject from his view.

The closer we examine the present condition of the sciences, the more we shall be struck with the anarchy above indicated. We shall find one science in a perfectly positive stage (physics), another in the metaphysical stage (biology, or electricity and the fine arts), a third, in the supernatural stage (sociology). Nor is this all. The same varieties will be found to co-exist in the same individual mind. The same man who in physics may be said to have arrived at the positive stage, and recognize no other object of inquiry than the laws of phenomena, will be found still a slave to the metaphysical stage in biology, and endeavouring to detect the cause of life; and so little emancipated from the supernatural stage in sociology, that if you talk to him of the possibility of a science of history, or a social science, he will laugh at you as a "theorizer." So vicious is our philosophical education; so imperfect the conception of a scientific method! Well might Shelley exclaim,—

"How green is this grey world!"

The present condition of science, therefore, exhibits three methods instead of one: hence the anarchy. To remedy the evil all differences must cease: one method must preside. Auguste Comte was the first to point out the fact, and to suggest the cure; and it will render his name immortal. So long as the supernatural explanation of phenomena was universally accepted, so long was there unity of thought, because one general principle was applied to all facts. The same may be said of the metaphysical stage, though in a less degree, because it was never universally accepted: it was in advance of the supernatural, but before it could attain universal recognition, the positive stage had already begun. When the positive method is universally accepted—and the day, we hope, is not far distant, at least among the *élite* of humanity—then shall we again have unity of thought, then shall we again have one general doctrine, powerful because general.

That the positive method is the only method adapted to human capacity, the only one on which truth can be found, is easily proved: on it alone can prevision of phenomena depend. Prevision is the characteristic and test of knowledge. If you can predict certain results, and they occur as you predicted, then are you assured that your knowledge is correct. If the wind blows according to the will of Boreas, we may, indeed, propitiate his favour, but we cannot calculate upon it. We can have no certain knowledge whether the wind will blow or not. If, on the other hand, it is subject to laws, like every thing else, once discover these laws, and men will predict concerning it as they predict concerning other matters. "Even the wind and the rain," to use the language of one of our most authoritative writers, "which in common speech are the types of uncertainty and change, obey laws as fixed as those of the sun and moon; and already, as regards many parts of the earth, man can foretel them without fear of being deceived. He plans his voyages to suit the coming monsoons, and prepares against the floods of the rainy seasons." If one other argument be needed, we would simply refer to the gradual and progressive improvement which has always taken place in every department of inquiry conducted upon the positive method. And with a success in exact proportion to its rigorous employment of that method—contrasted with the circular movement of philosophy, which is just as far from a solution of any one of its problems as it was five thousand years ago—the only truths that it can be said to have acquired, are a few psychological truths, and these it owes to the positive method.

Every artist must have felt, as every votary of science, the truth of this law of mental evolution in its historical as well as individual application to art. Individually he will more particularly recollect how the fanciful notions of the earlier days of his career gradually gave way to more fixed and certain maxims, enabling him to accomplish with comparative ease, un-

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* V. I. IV. p. 15 and p. 20. † See p. 324, ante.

‡ A temporary museum of antiquities was open during the meeting, and excited much interest. A full account of the exhibits will be found in the Archæological Journal of last week.

* See p. 265 ante.